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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,648	10/15/2003	Srinivas Kandala	SLA1163	4969

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EXAMINER	
MURPHY, RHONDA L	

ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
04/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/685,648	**Applicant(s)** KANDALA, SRINIVAS
	Examiner RHONDA MURPHY	**Art Unit** 2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 January 2008*.
2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-15 and 17-28* is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1,3,4,12-15,17,18 and 26-28* is/are rejected.
7)☒ Claim(s) *5-11 and 19-25* is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *27 August 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☐ All b)☐ Some * c)☐ None of:
1.☐ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This communication is responsive to the amendment filed on 1/9/08. Accordingly, claims 2 and 16 have been previously canceled and claims 1, 3-15 and 17-28 are currently pending in this application.

Response to Arguments

1. Applicant's arguments filed 1/9/08 have been fully considered but they are not persuasive. Applicant argues Stanwood fails to disclose the conversion of the transmission bandwidth to time, the calculation of Ttemp, Tall and Tres, or the allocation of bandwidth based on an analysis of Ttemp, Tall and Tres. However, Examiner respectfully disagrees. Stanwood discloses the conversion of transmission bandwidth to time in columns 8, lines 13-19 and further in column 12, lines 28-34. The passages recite communication between the base station and CPEs being multiplexed on the basis of time division duplexing (TDD), where the CPE would send its data along communication link 112 to the base station 102 during a previously allocated time slot in a transmission frame. Stanwood further describes the scheduling method and system is used to determine which connections received physical slots from its CPE during a period or duration of time…the data rate multiplied by the duration gives the amount of bandwidth required.

2. In regard to the calculation of Ttemp, the transmission time equivalent to the requested bandwidth, Stanwood discloses, in column 8, lines 45-54, the CPE

requesting bandwidth allocations from their respective base station. Bandwidth that is allocated to a CPE, the location of the bandwidth allocation within the transmission frame and the duration of the allocation can be dynamic on a transmission frame by transmission frame basis.

3. In regard to the calculation of Tall, the transmission time already allocated, Stanwood discloses, in column 8, lines 57-61, the amount of bandwidth dedicated to a given connection can be determined by the information rate and the quality of service required by that connection.

4. In regard to the calculation of Tres, the total transmission time available, Stanwood disclose, in column 8, lines 57-61 and column 7, lines 17-20, the total bandwidth available: "the available bandwidth in any given period of time"

5. In addition, Stanwood teaches admitting the QSTA (col. 10, lines 61-67) and not admitting the QSTA (col. 10, lines 21-25). Although Stanwood fails to *explicitly* disclose *if T-temp+T-all <T-res*, admitting the QSTA; and, *if T.-temp+T-all >T-res*, not admitting the QSTA, it would have been obvious to one skilled in the art to realize the QSTA will be admitted when the requested bandwidth time, plus the time already allocated is less than the time available, so as to allow transmission to occur when bandwidth is sufficient. Furthermore it would have been obvious to one skilled in the art to realize the QSTA will not be admitted when the requested bandwidth time, plus the time already allocated is greater than the time available, so as to prevent transmission when bandwidth is insufficient. Thus, the "admitting" step and "not admitting" step is taught by

Stanwood, using the bandwidth parameters, even though "*if T-temp+T-all <T-res*" and "*if T.-temp+T-all >T-res*" is not explicitly disclosed.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 3, 4, 12 – 15, 17, 18 and 26 - 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanwood et al. (US 7,177,275).

Regarding claim 1, Stanwood teaches a method for periodic stream admission control, the method comprising: at an access point (Fig. 1; base station 106), receiving a transmit specification, including a requested bandwidth (col. 7, lines 17-20), from a quality of service station QSTA (CPE); converting transmit specification parameters into time (col. 8, lines 13-19; further described in col. 12, lines 28-34); computing T-temp, the transmission time equivalent to the requested bandwidth (col. 8, lines 45-54); computing T-all, the transmission time already allocated (col. 8, lines 57-61); computing T-res, the total transmission time available (col. 8, lines 57-61; also refer to col. 7, lines 17-20).

Although Stanwood teaches admitting the QSTA (col. 10, lines 61-67) and not admitting the QSTA (col. 10, lines 21-25), Stanwood fails to *explicitly* disclose *if T-*

temp+T-all <T-res, admitting the QSTA; and, *if T.-temp+T-all >T-res*, not admitting the QSTA.

However, it would have been obvious to one skilled in the art to realize the QSTA will be admitted when the requested bandwidth time, plus the time already allocated is less than the time available, so as to allow transmission to occur when bandwidth is sufficient. Furthermore it would have been obvious to one skilled in the art to realize the QSTA will not be admitted when the requested bandwidth time, plus the time already allocated is greater than the time available, so as to prevent transmission when bandwidth is insufficient.

Regarding claim 3, Stanwood teaches the method of claim 1 wherein computing T-temp includes computing Ttxop, the duration of the transmission opportunity in each poll in response to (col. 9, lines 37-45): the network physical layer (PHY) parameters (col. 9, lines 59-61); the duration of the poll frame (col. 9, lines 37-45); the probability of poll frame transmission success (col. 9, lines 65- col. 10, lines 1-5); and, the duration of each transmission (col. 9, lines 37-45).

Regarding claim 4, Stanwood teaches the method of claim 3 wherein the network PHY parameters include: short interframe spacing and the slot duration (col. 9, lines 37-45).

Stanwood fails to explicitly disclose PCF interframe spacing.

However, it is known in the art for network PHY parameters to include these interframe spacing.

Therefore, it would have been obvious to one skilled in the art to include PCF interframe spacing, for the purpose of dividing the frame into specific portions.

Regarding claim 12, Stanwood teaches the method of claim 2 further comprising: monitoring the bandwidth of the admitted QSTA (col. 8, lines 57-66).

Regarding claim 13, Stanwood teaches the method of claim 1 further comprising: determining the bandwidth required by the admitted QSTA (col. 8, lines 58-61); and, modifying the bandwidth of the admitted QSTA in response to the determined QSTA requirements (col. 8, lines 44-56).

Regarding claim 14, Stanwood teaches the method of claim 1 further comprising: monitoring channel conditions (col. 8, lines 44-61); and, modifying the bandwidth of the admitted QSTA in response to the channel conditions (col. 8, lines 44-61).

Regarding claim 15, Stanwood teaches a system for periodic stream admission control, the system comprising: a quality of service station (CPE 110) having a transceiver port (not illustrated, however, inherent to transmit and receive communication from/to "106") to communicate a request for admission to a periodic communication stream at a requested bandwidth using a transmit specification TSPEC (col. 7, lines 17-20); and, a hybrid coordinator (base station 106), having a controller with a transceiver port (not illustrated, however, inherent to transmit and receive communication from/to "110") to receive the TSPEC from the QSTA, to convert TSPEC parameters into time, (col. 8, lines 13-19), to compute T-temp, the transmission time equivalent to the requested bandwidth (col. 8, lines 49-54), T-all, the transmission time already allocated (col. 8, lines 57-61), T-res, the total transmission time available (col. 8, lines 57-61).

Although Stanwood teaches the controller admitting the QSTA (col. 10, lines 61-67) and refusing the QSTA (col. 10, lines 21-25), Stanwood fails to explicitly disclose admitting the QSTA if T-temp+T-all <T-res, and refusing admission to the QSTA if T.-temp+T-all >T-res.

However, it would have been obvious to one skilled in the art to realize the QSTA will be admitted when the requested bandwidth time, plus the time already allocated is less than the time available, so as to allow transmission to occur when bandwidth is sufficient. Furthermore it would have been obvious to one skilled in the art to refuse the QSTA when the requested bandwidth time, plus the time already allocated is greater than the time available, so as to prevent transmission when bandwidth is insufficient.

Regarding claim 17, Stanwood teaches the same limitation describe above in the rejection of claim 3.

Regarding claim 18, Stanwood teaches the same limitation describe above in the rejection of claim 4.

Regarding claim 26, Stanwood teaches the same limitation describe above in the rejection of claim 12.

Regarding claim 27, Stanwood teaches the same limitation describe above in the rejection of claim 13.

Regarding claim 28, Stanwood teaches the same limitation describe above in the rejection of claim 14.

Allowable Subject Matter

8. Claims 5-11 and 19-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RHONDA MURPHY whose telephone number is (571)272-3185. The examiner can normally be reached on Monday - Friday 9:00 - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on (571) 272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rhonda Murphy
Examiner
Art Unit 2616

/FIRMIN BACKER/
Supervisory Patent Examiner, Art Unit 2616